

## Electrohydraulic Brake System for Motor Vehicles

### Abstract:

The invention relates to a brake system which can be operated in three modes of operation, i.e. a muscular-power, non-boosted mode of operation, a hydraulically boosted mode of operation, and an electronically controlled mode of operation, with the brake system including a master cylinder (1), a first piston (2) coupled to a brake pedal (3), a second piston (4) actuating the master cylinder (1), and a third piston (5) actuatable by the first piston (2), with at least one elastic element (6, 7) being provided between the first and the third piston (5), and all three pistons (2, 4, 5) are arranged in a housing (8). Further, there is provision of a hydraulic pressure source (9) and a valve device (10) for reducing the pressure of the pressure source (9) to a value of pressure that is fed into a space (11) by which the second piston (4) and the third piston (5) are separated from each other in such a fashion that the third piston (5) is acted upon by the pressure acting upon the second piston (4) in the direction being opposite to the direction of application of the second piston (4). According to the invention, a valve member (13) of the valve device (10) is designed in such a manner that its two end surfaces are exposed to the effect of the pressure prevailing in the space (11).

(Figure 1)